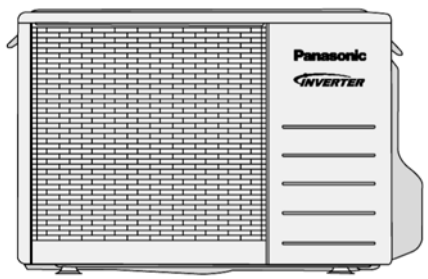
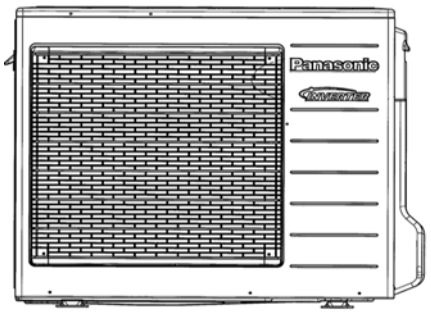
Order No: PHAAM1111084C1

Service Manual

Air Conditioner





Indoor Unit	Outdoor Unit
CS-S9NKUW-1	CU-S9NKU-1
CS-S12NKUW-1	CU-S12NKU-1
CS-S18NKU-1	CU-S18NKU-1
CS-S22NKU-1	CU-S22NKU-1

Please file and use this manual together with the service manual for Model No. CU-2S18NBU, Order No. PHAAM1111121C1.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the products dealt with in this service information by anyone else could result in serious injury or death.

⚠ PRECAUTION OF LOW TEMPERATURE

In order to avoid frostbite, be assured of no refrigerant leakage during the installation or repairing of refrigerant circuit.

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1. Safety Precautions

- Read the following “SAFETY PRECAUTIONS” carefully before perform any servicing.
- Electrical work must be installed or serviced by a licensed electrician. Be sure to use the correct rating of the power plug and main circuit for the model installed.
- The caution items stated here must be followed because these important contents are related to safety. The meaning of each indication used is as below. Incorrect installation or servicing due to ignoring of the instruction will cause harm or damage, and the seriousness is classified by the following indications.

⚠ **WARNING**	This indication shows the possibility of causing death or serious injury.
⚠ **CAUTION**	This indication shows the possibility of causing injury or damage to properties.

- The items to be followed are classified by the symbols:

⃠	This symbol denotes item that is PROHIBITED from doing.

- Carry out test run to confirm that no abnormality occurs after the servicing. Then, explain to user the operation, care and maintenance as stated in instructions. Please remind the customer to keep the operating instructions for future reference.

	⚠ **WARNING**	
1.	Do not modify the machine, part, material during repairing service.	
2.	If wiring unit is supplied as repairing part, do not repair or connect the wire even only partial wire break. Exchange the whole wiring unit.	
3.	Do not wrench the fasten terminal. Pull it out or insert it straightly.	
4.	Engage authorized dealer or specialist for installation and servicing. If installation of servicing done by the user is defective, it will cause water leakage, electrical shock or fire.	
5.	Install according to this installation instructions strictly. If installation is defective, it will cause water leakage, electric shock or fire.	
6.	Use the attached accessories parts and specified parts for installation and servicing. Otherwise, it will cause the set to fall, water leakage, fire or electrical shock.	
7.	Install at a strong and firm location which is able to withstand the set’s weight. If the strength is not enough or installation is not properly done, the set will drop and cause injury.	
8.	For electrical work, follow the local national wiring standard, regulation and the installation instruction. An independent circuit and single outlet must be used. If electrical circuit capacity is not enough or defect found in electrical work, it will cause electrical shock or fire.	
9.	This equipment is strongly recommended to be installed with Earth Leakage Circuit Breaker (ELCB) or Residual Current Device (RCD). Otherwise, it may cause electrical shock and fire in case equipment breakdown or insulation breakdown.	
10.	Do not use joint cable for indoor/outdoor connection cable. Use the specified indoor/outdoor connection cable, refer to installation instruction CONNECT THE CABLE TO THE INDOOR UNIT and connect tightly for indoor/outdoor connection. Clamp the cable so that no external force will be acted on the terminal. If connecting or fixing is not perfect, it will cause heat up or fire at the connection.	
11.	Wire routing must be properly arranged so that control board cover is fixed properly. If control board cover is not fixed perfectly, it will cause heat-up or fire at the connection point of terminal, fire or electrical shock.	
12.	When install or relocate air conditioner, do not let any substance other than the specified refrigerant, eg. air etc. mix into refrigeration cycle (piping). (Mixing of air etc. will cause abnormal high pressure in refrigeration cycle and result in explosion, injury etc.).	
13.	Do not install outdoor unit near handrail of veranda. When installing air-conditioner unit at veranda of high rise building, child may climb up to outdoor unit and cross over the handrail and causing accident.	
14.	This equipment must be properly earthed. Earth line must not be connected to gas pipe, water pipe, earth of lightning rod and telephone. Otherwise, it may cause electrical shock in case equipment breakdown or insulation breakdown.	⃠
15.	Keep away from small children, the thin film may cling to nose and mouth and prevent breathing.	⃠
16.	Do not use unspecified cord, modified cord, joint cord or extension cord for power supply cord. Do not share the single outlet with other electrical appliances. Poor contact, poor insulation or over current will cause electrical shock or fire.	⃠
17.	Tighten the flare nut with torque wrench according to specified method. If the flare nut is over-tightened, after a long period, the flare may break and cause refrigerant gas leakage.	
18.	For R410A models, when connecting the piping, do not use any existing (R22) pipes and flares nuts. Using such same may cause abnormally high pressure in the refrigeration cycle (piping), and possibly result in explosion and injury. In case of using existing (R22) pipes during installation of R410A models, must carry out pump down properly to collect back the refrigerant and oil before installation new unit. Thickness of copper pipes used with R410A must be more than 0.6mm. Never use copper pipes thinner than 0.6mm. It is desirable that the amount of residual oil is less than 40 mg/10m.	⃠

	⚠ WARNING
19.	During installation, install the refrigerant piping properly before run the compressor. (Operation of compressor without fixing refrigeration piping and valves at opened condition will cause suck-in of air, abnormal high pressure in refrigeration cycle and result in explosion, injury etc.).
20.	During pump down operation, stop the compressor before remove the refrigeration piping. (Removal of refrigeration piping while compressor is operating and valves are opened condition will cause suck-in of air, abnormal high pressure in refrigeration cycle and result in explosion, injury etc.)..
21.	After completion of installation or service, confirm there is no leakage of refrigerant gas. It may generate toxic gas when the refrigerant contacts with fire.
22.	Ventilate if there is refrigerant gas leakage during operation. It may cause toxic gas when the refrigerant contacts with fire.
23.	Do not insert your fingers or other objects into the unit, high speed rotating fan may cause injury
24.	Must not use other parts except original parts describe in catalog and manual.
25.	Using of refrigerant other than the specified type may cause product damage, burst and injury etc.

	⚠ CAUTION
1.	Do not install the unit at place where leakage of flammable gas may occur. In case gas leaks and accumulates at surrounding of the unit, it may cause fire.
2.	Carry out drainage piping as mentioned in installation instructions. If drainage is not perfect, water may enter the room and damage the furniture.
3.	Tighten the flare nut with torque wrench according to specified method. If the flare nut is over-tightened, after a long period, the flare may break and cause refrigerant gas leakage.
4.	Do not touch outdoor unit air inlet and aluminium fin. It may cause injury.
5.	Select an installation location which is easy for maintenance.
6.	Pb free solder has a higher melting point than standard solder; typically the melting point is 50°F – 70°F (30°C – 40°C) higher. Please use a high temperature solder iron. In case of the soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C). Pb free solder will tend to splash when heated too high (about 1100°F / 600°C).
7.	Power supply connection to the air conditioner. Connect the power supply cord of the air conditioner to the mains using one of the following methods. Power supply point shall be the place where there is ease for access for the power disconnection in case of emergency. In some countries, permanent connection of this room air conditioner to the power supply is prohibited. i. Power supply connection to the receptacle using a power plug. Use an approved 15/16A (1.0 ~ 1.75HP) or 16A (2.0HP) or 20A (2.5HP), power plug with earth pin for the connection to the socket. ii. Power supply connection to a circuit breaker for the permanent connection. Use an approved 16A (1.0 ~ 2.0HP) or 20A (2.5HP), circuit breaker for the permanent connection. It must be a double pole switch with a minimum 3.0 mm contact gap.
8.	Do not release refrigerant during piping work for installation, servicing, reinstallation and during repairing a refrigerant parts. Take care of the liquid refrigerant, it may cause frostbite.
9.	Installation or servicing work: It may need two people to carry out the installation or servicing work.
10.	Do not install this appliance in a laundry room or other location where water may drip from the ceiling, etc.
11.	Do not sit or step on the unit, you may fall down accidentally.
12.	Do not touch the sharp aluminum fins , sharp parts may cause injury.

2. Specification

Model			Indoor	CS-S9NKUW-1						CS-S12NKUW-1					
			Outdoor	CU-S9NKU-1						CU-S12NKU-1					
Performance Test Condition				ARI						ARI					
Power Supply			Phase, Hz	Single, 60						Single, 60					
			V	208			230			208			230		
				Min.	Mid.	Max.	Min.	Mid.	Max.	Min.	Mid.	Max.	Min.	Mid.	Max.
Cooling	Capacity		kW	1.20	2.49	3.00	1.20	2.49	3.00	1.20	3.48	3.85	1.20	3.48	3.85
			BTU/h	4100	8500	10200	4100	8500	10200	4100	11900	13100	4100	11900	13100
	Running Current		A	-	3.7	-	-	3.3	-	-	5.1	-	-	4.6	-
	Input Power		W	250	700	900	250	700	900	250	1.00k	1.15k	250	1.00k	1.15k
	EER		W/W	4.80	3.56	3.33	4.80	3.56	3.33	4.80	3.48	3.35	4.80	3.48	3.35
			Btu/hW	16.40	12.10	11.30	16.40	12.10	11.30	16.40	11.90	11.35	16.40	11.90	11.35
	Power Factor		%	-	91	-	-	92	-	-	94	-	-	95	-
	Indoor Noise (H / L / QLo)		dB-A	40 / 25 / 20			40 / 25 / 20			43 / 28 / 20			43 / 28 / 20		
			Power Level dB	56 / -			56 / -			59 / -			59 / -		
	Outdoor Noise (H / L / QLo)		dB-A	45 / - / -			47 / - / -			46 / - / -			48 / - / -		
			Power Level dB	60 / -			62 / -			61 / -			63 / -		
Max Current (A) / Max Input Power (W)				4.1 / 900						5.4 / 1.22k					
Starting Current (A)				3.7						5.1					
Min Circuit Ampacity				15.0						15.0					
Max. Overcurrent Protection				15.0						15.0					
Compressor	Type			Hermetic Motor (Rotary)						Hermetic Motor (Rotary)					
	Motor Type			Brushless (6 poles)						Brushless (6 poles)					
	Output Power		W	700						700					
Indoor Fan	Type			Cross-flow fan						Cross-flow fan					
	Material			ASG20K1						ASG20K1					
	Motor Type			Transistor (8 poles)						Transistor (8 poles)					
	Input Power		W	47.0 - 47.0						47.0 - 47.0					
	Output Power		W	30						30					
	Speed	QLo	rpm	610						630					
		Lo	rpm	710						790					
		Me	rpm	920						1030					
		Hi	rpm	1130						1270					
		SHi	rpm	1230						1400					
Outdoor Fan	Type			Propeller						Propeller					
	Material			PP						PP					
	Motor Type			Induction (6 poles)						Induction (6 poles)					
	Input Power		W	-						-					
	Output Power		W	28						28					
	Speed	Hi	rpm	760 - 840						760 - 840					
Moisture Removal			L/h (Pt/h)	0.6 (1.3)						1.1 (2.3)					
Indoor Airflow	QLo		m^3/min (ft^3/min)	5.65 (199)						5.30 (187)					
	Lo		m^3/min (ft^3/min)	6.76 (239)						6.98 (246)					
	Me		m^3/min (ft^3/min)	9.08 (321)						9.49 (335)					
	Hi		m^3/min (ft^3/min)	11.4 (400)						12.0 (425)					
	SHi		m^3/min (ft^3/min)	12.51 (442)						13.36 (472)					
Outdoor Airflow	Hi		m^3/min (ft^3/min)	29.7 (1050)			31.0 (1095)			29.7 (1050)			31.0 (1095)		

Refrigeration Cycle	Control Device		Capillary Tube		Capillary Tube	
	Refrigerant Oil	cm^3	RB68A or Freol Alpha68M (320)		RB68A or Freol Alpha68M (320)	
	Refrigerant Type	g (oz)	R410A, 965 (34.1)		R410A, 980 (34.6)	
Dimension	Height(I/D / O/D)	mm (inch)	290 (11-7/16) / 540 (21-9/32)		290 (11-7/16) / 540 (21-9/32)	
	Width (I/D / O/D)	mm (inch)	870 (34-9/32) / 780 (30-23/32)		870 (34-9/32) / 780 (30-23/32)	
	Depth (I/D / O/D)	mm (inch)	204 (8-1/16) / 289 (11-13/32)		204 (8-1/16) / 289 (11-13/32)	
Weight	Net (I/D / O/D)	kg (lb)	9 (20)	37 (82)	9 (20)	37 (82)
Piping	Pipe Diameter (Liquid / Gas)	mm (inch)	6.35 (1/4) / 9.52 (3/8)		6.35 (1/4) / 12.70 (1/2)	
	Standard length	m (ft)	7.5 (24.6)		7.5 (24.6)	
	Length range (min – max)	m (ft)	3 (9.8) ~ 15 (49.2)		3 (9.8) ~ 15 (49.2)	
	I/D & O/D Height different	m (ft)	5 (16.4)		5 (16.4)	
	Additional Gas Amount	g/m (oz/ft)	20 (0.2)		20 (0.2)	
	Length for Additional Gas	m (ft)	7.5 (24.6)		7.5 (24.6)	
Drain Hose	Inner Diameter	mm (inch)	16.7 (5/8)		16.7 (5/8)	
	Length	mm (inch)	650 (25-5/8)		650 (25-5/8)	
Indoor Heat Exchanger	Fin Material		Aluminium (Pre Coat)		Aluminium (Pre Coat)	
	Fin Type		Slit Fin		Slit Fin	
	Row x Stage x FPI		2 x 15 x 19		2 x 15 x 21	
	Size (W x H x L)	inch	(1) x (12-3/8) x (24)		(1) x (12-3/8) x (24)	
Outdoor Heat Exchanger	Fin Material		Aluminium (Blue coated)		Aluminium (Blue coated)	
	Fin Type		Corrugate Fin		Corrugate Fin	
	Row x Stage x FPI		2 x 24 x 17		2 x 24 x 17	
	Size (W x H x L)	inch	(1-3/8) x (19-7/8) x (28-1/8) (26-7/8)		(1-3/8) x (19-7/8) x (28-1/8) (26-7/8)	
Air Filter	Material		Polypropelene		Polypropelene	
	Type		One-touch		One-touch	
Power Supply			Outdoor		Outdoor	
Power Supply Cord		A	-		-	
Thermostat			-		-	
Protection Device			-		-	
			DRY BULB	WET BULB	DRY BULB	WET BULB
Indoor Operation Range		Maximum	89.6	73.4	89.6	73.4
		Minimum	60.8	51.8	60.8	51.8
Outdoor Operation Range		Maximum	109.4	78.8	109.4	78.8
		Minimum	60.8	51.8	60.8	51.8

1. Cooling capacities are based on indoor temperature of 80.6°F DRY BULB, 66°F WET BULB and outdoor air temperature of 95°F DRY BULB, 75.2°F WET BULB.

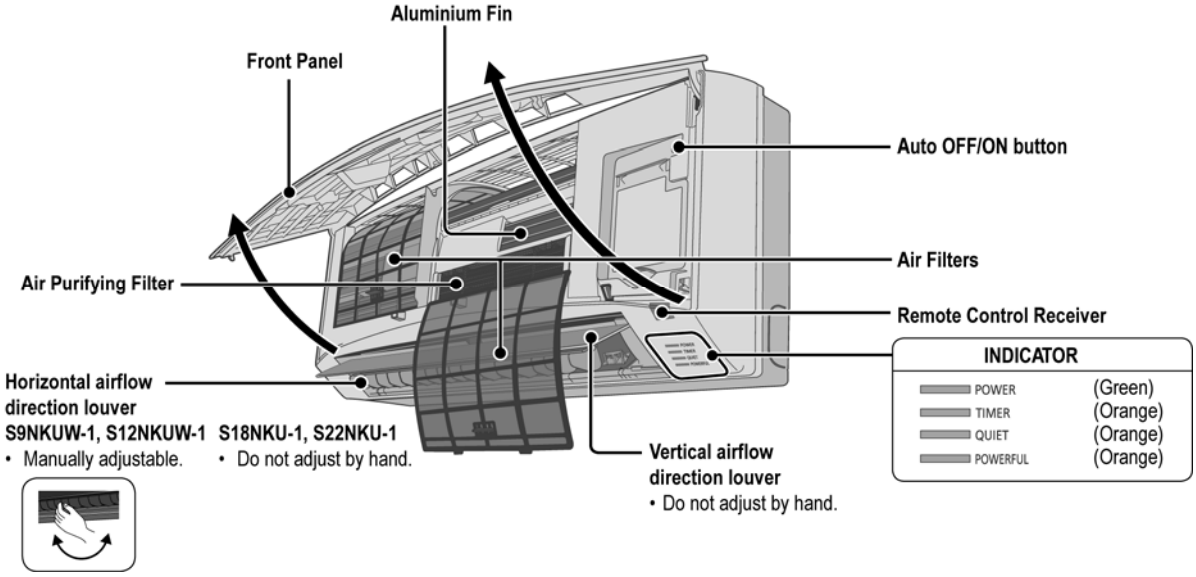
Model			Indoor	CS-S18NKU-1						CS-S22NKU-1					
			Outdoor	CU-S18NKU-1						CU-S22NKU-1					
Performance Test Condition				ARI						ARI					
Power Supply			Phase, Hz	Single, 60						Single, 60					
			V	208			230			208			230		
				Min.	Mid.	Max.	Min.	Mid.	Max.	Min.	Mid.	Max.	Min.	Mid.	Max.
Cooling	Capacity		kW	1.30	5.01	5.80	1.30	5.01	5.80	1.30	6.18	6.85	1.30	6.18	6.85
			BTU/h	4400	17100	19800	4400	17100	19800	4400	21000	23400	4400	21000	23400
	Running Current		A	-	8.3	-	-	7.5	-	-	11.2	-	-	10.0	-
	Input Power		W	250	1.65k	1.95k	250	1.65k	1.95k	250	2.25k	2.55k	250	2.25k	2.55k
	EER		W/W	5.20	3.04	2.97	5.20	3.04	2.97	5.20	2.75	2.69	5.20	2.75	2.69
			Btu/hW	17.60	10.35	10.15	17.60	10.35	10.15	17.60	9.30	9.15	17.60	9.30	9.15
	Power Factor		%	-	96	-	-	96	-	-	97	-	-	98	-
	Indoor Noise (H / L / QLo)		dB-A	47 / 39 / 36			47 / 39 / 36			47 / 39 / 36			47 / 39 / 36		
			Power Level dB	63 / -			63 / -			63 / -			63 / -		
	Outdoor Noise (H / L / QLo)		dB-A	47 / - / -			47 / - / -			50 / - / -			50 / - / -		
			Power Level dB	61 / -			61 / -			64 / -			64 / -		
Max Current (A) / Max Input Power (W)				9.0 / 1.99k						10.8 / 2.48k					
Starting Current (A)				8.3						11.2					
Min Circuit Ampacity				15.0						20.0					
Max. Overcurrent Protection				20.0						25.0					
Compressor	Type			Hermetic Motor (Scroll)						Hermetic Motor (Scroll)					
	Motor Type			Brushless (4 poles)						Brushless (4 poles)					
	Output Power		W	900						900					
Indoor Fan	Type			Cross-flow fan						Cross-flow fan					
	Material			ASG30K1						ASG30K1					
	Motor Type			Transistor (8 poles)						Transistor (8 poles)					
	Input Power		W	94.8 - 94.8						94.8 - 94.8					
	Output Power		W	30						30					
	Speed	QLo	rpm	990						990					
		Lo	rpm	1090						1090					
		Me	rpm	1270						1270					
		Hi	rpm	1460						1460					
		SHi	rpm	1500						1500					
Outdoor Fan	Type			Propeller						Propeller					
	Material			PP						PP					
	Motor Type			Induction (8 poles)						Induction (8 poles)					
	Input Power		W	-						-					
	Output Power		W	38						38					
	Speed	Hi	rpm	500 - 550						550 - 600					
Moisture Removal			L/h (Pt/h)	1.7 (3.6)						2.9 (6.1)					
Indoor Airflow	QLo		m^3/min (ft^3/min)	11.73 (414)						11.73 (414)					
	Lo		m^3/min (ft^3/min)	13.15 (464)						13.15 (464)					
	Me		m^3/min (ft^3/min)	15.70 (554)						15.70 (554)					
	Hi		m^3/min (ft^3/min)	18.4 (650)						18.4 (650)					
	SHi		m^3/min (ft^3/min)	18.97 (670)						18.97 (670)					
Outdoor Airflow	Hi		m^3/min (ft^3/min)	37.5 (1325)			41.6 (1470)			43.8 (1545)			47.5 (1675)		

Refrigeration Cycle	Control Device		Expansion Valve		Expansion Valve	
	Refrigerant Oil	cm^3	RB68A or Freol Alpha68M (400)		RB68A or Freol Alpha68M (400)	
	Refrigerant Type	g (oz)	R410A, 1.18k (41.7)		R410A, 1.37k (48.4)	
Dimension	Height(I/D / O/D)	mm (inch)	290 (11-7/16) / 795 (31-5/16)		290 (11-7/16) / 795 (31-5/16)	
	Width (I/D / O/D)	mm (inch)	1070 (42-5/32) / 875 (34-15/32)		1070 (42-5/32) / 875 (34-15/32)	
	Depth (I/D / O/D)	mm (inch)	235 (9-9/32) / 320 (12-5/8)		235 (9-9/32) / 320 (12-5/8)	
Weight	Net (I/D / O/D)	kg (lb)	12 (26)	52 (115)	12 (26)	53 (117)
Piping	Pipe Diameter (Liquid / Gas)	mm (inch)	6.35 (1/4) / 12.70 (1/2)		6.35 (1/4) / 15.88 (5/8)	
	Standard length	m (ft)	5.0 (16.4)		5.0 (16.4)	
	Length range (min – max)	m (ft)	3 (9.8) ~ 20 (65.6)		3 (9.8) ~ 20 (65.6)	
	I/D & O/D Height different	m (ft)	15 (49.2)		15 (49.2)	
	Additional Gas Amount	g/m (oz/ft)	20 (0.2)		20 (0.2)	
	Length for Additional Gas	m (ft)	10 (32.8)		10 (32.8)	
Drain Hose	Inner Diameter	mm (inch)	16.7 (5/8)		16.7 (5/8)	
	Length	mm (inch)	650 (25-5/8)		650 (25-5/8)	
Indoor Heat Exchanger	Fin Material		Aluminium (Pre Coat)		Aluminium (Pre Coat)	
	Fin Type		Slit Fin		Slit Fin	
	Row x Stage x FPI		2 x 15 x 21		2 x 15 x 21	
	Size (W x H x L)	inch	(1) x (12-3/8) x (31-7/8)		(1) x (12-3/8) x (31-7/8)	
Outdoor Heat Exchanger	Fin Material		Aluminium (Blue coated)		Aluminium (Blue coated)	
	Fin Type		Corrugate Fin		Corrugate Fin	
	Row x Stage x FPI		2 x 36 x 19		2 x 36 x 18	
	Size (W x H x L)	inch	(1-3/8) x (29-3/4) x (24-3/8) (24-3/8)		(1-3/8) x (29-3/4) x (33) (31-7/8)	
Air Filter	Material		Polypropelene		Polypropelene	
	Type		One-touch		One-touch	
Power Supply			Outdoor		Outdoor	
Power Supply Cord		A	-		-	
Thermostat			-		-	
Protection Device			-		-	
			DRY BULB	WET BULB	DRY BULB	WET BULB
Indoor Operation Range		Maximum	89.6	73.4	89.6	73.4
		Minimum	60.8	51.8	60.8	51.8
Outdoor Operation Range		Maximum	109.4	78.8	109.4	78.8
		Minimum	60.8	51.8	60.8	51.8

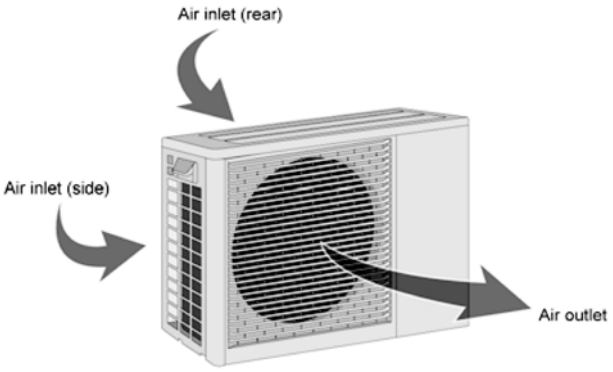
1. Cooling capacities are based on indoor temperature of 80.6°F DRY BULB, 66°F WET BULB and outdoor air temperature of 95°F DRY BULB, 75.2°F WET BULB.

3. Location of Controls and Components

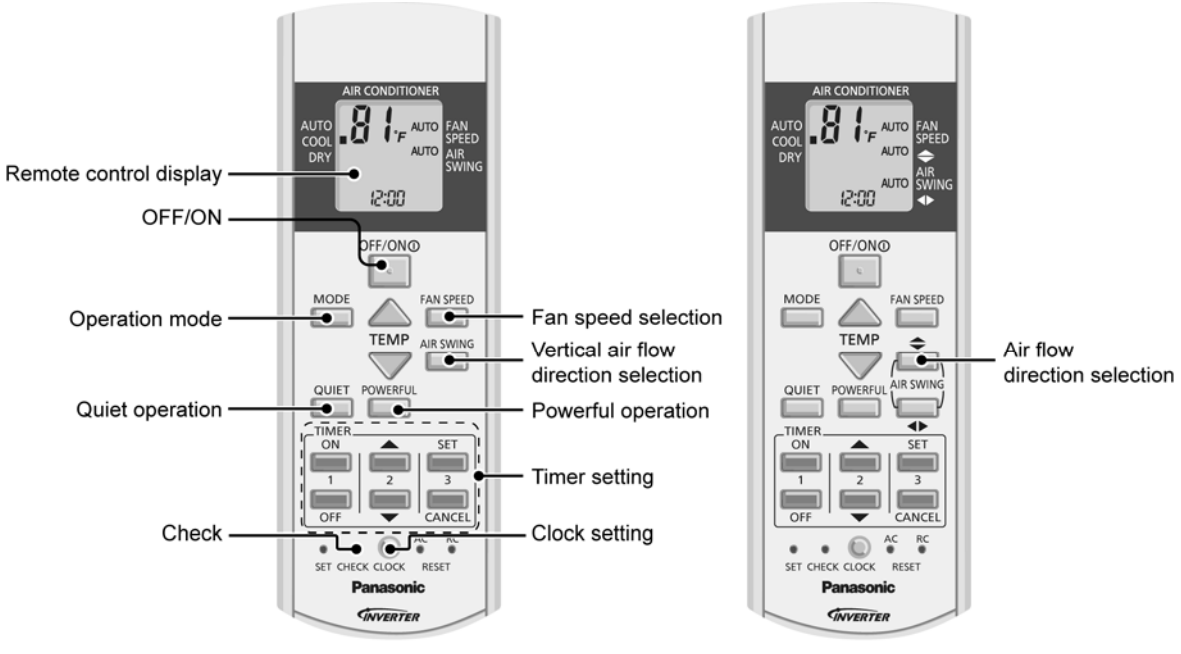
3.1 Indoor Unit



3.2 Outdoor Unit



3.3 Remote Control

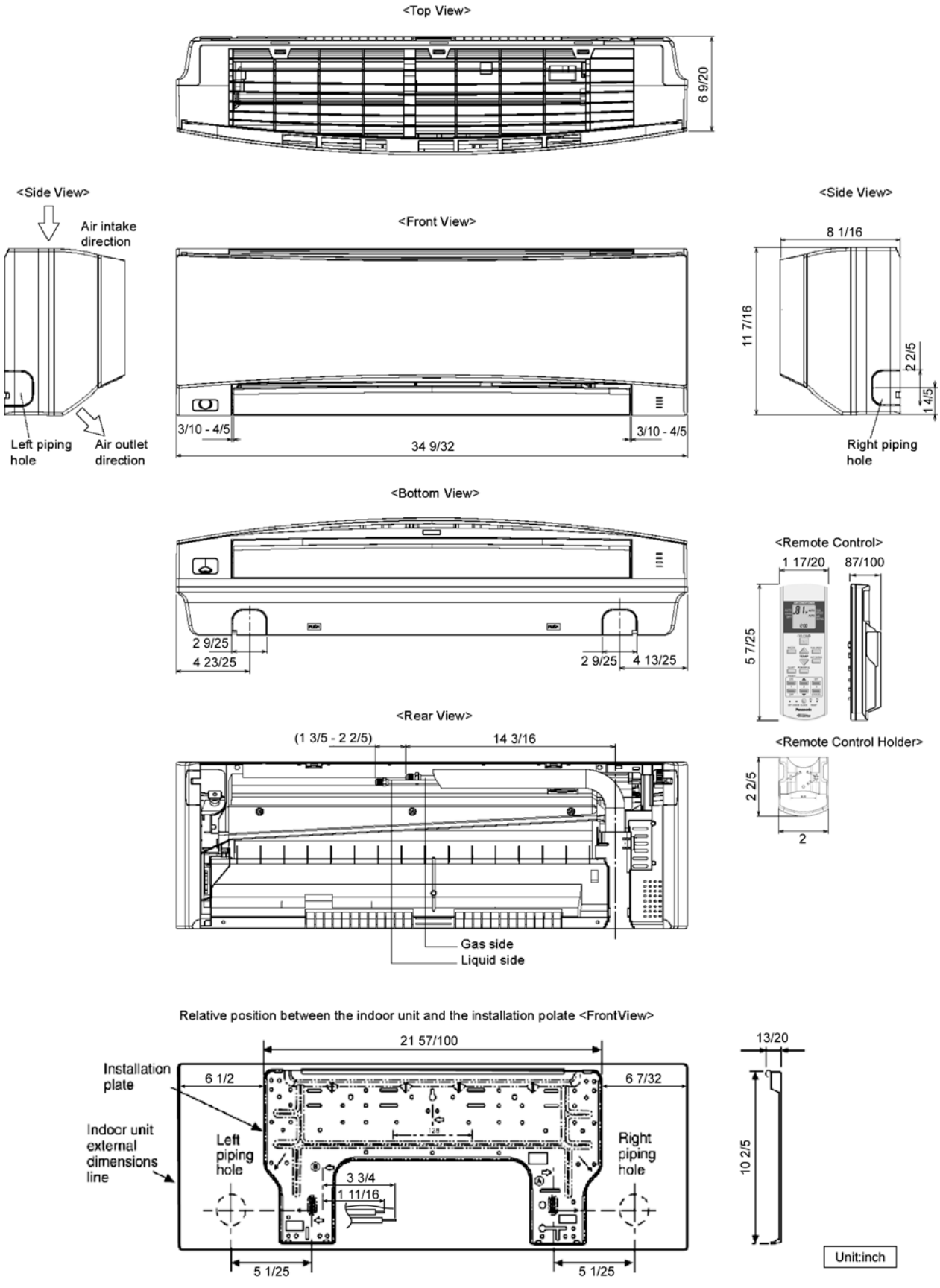


S9NKUW-1, S12NKUW-1 S18NKU-1, S24NKU-1

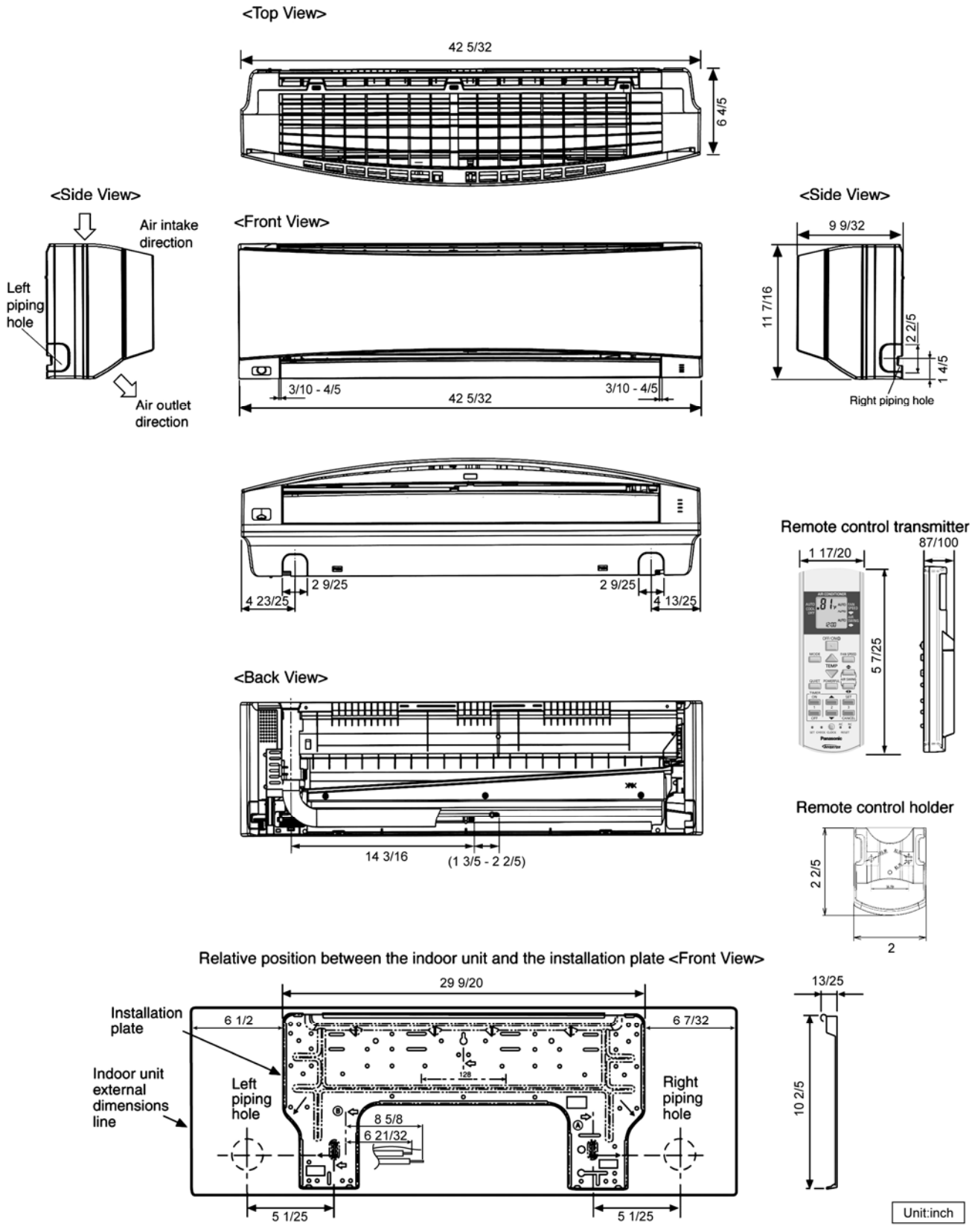
4. Dimensions

4.1 Indoor Unit

4.1.1 CS-S9NKUW-1 CS-S12NKUW-1

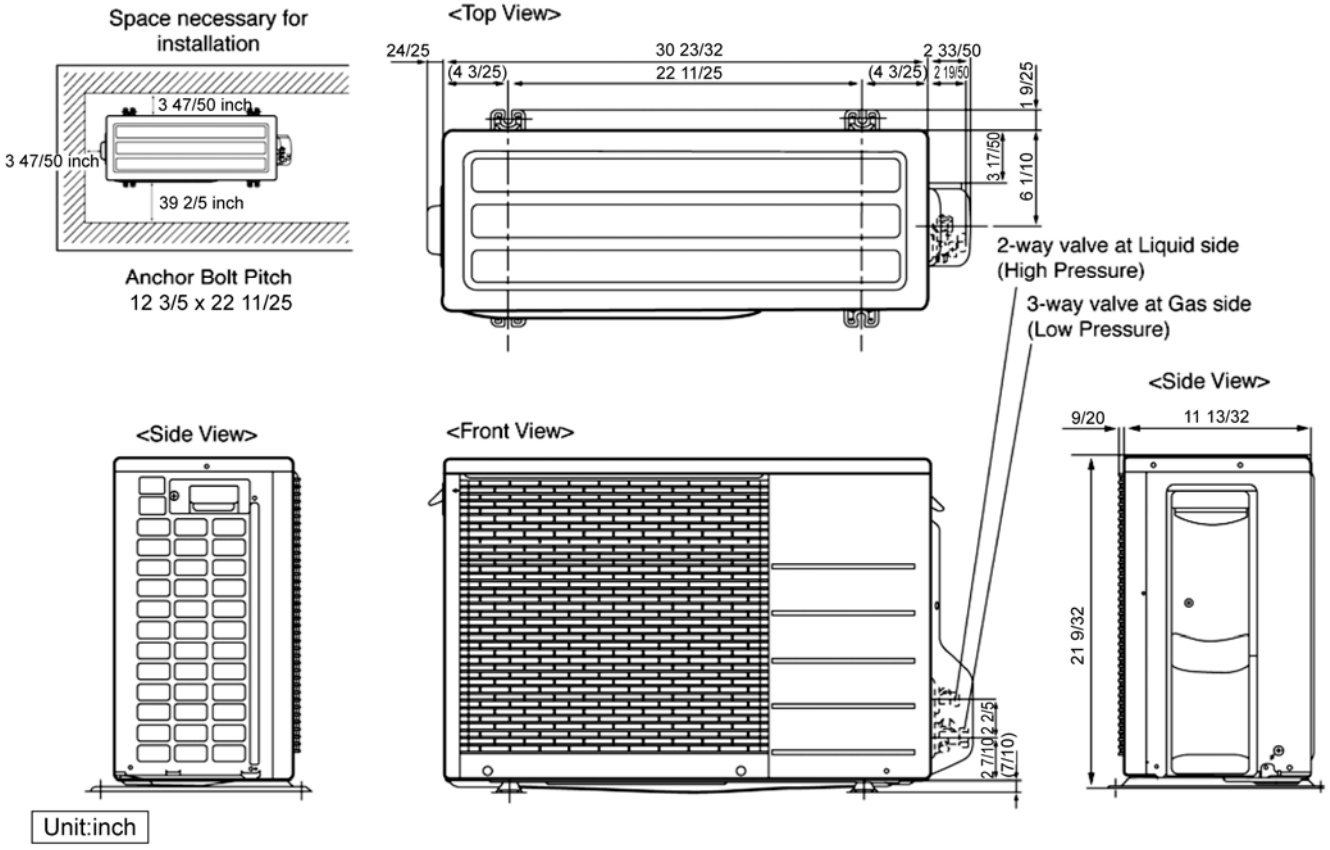


4.1.2 CS-S18NKU-1 CS-S22NKU-1

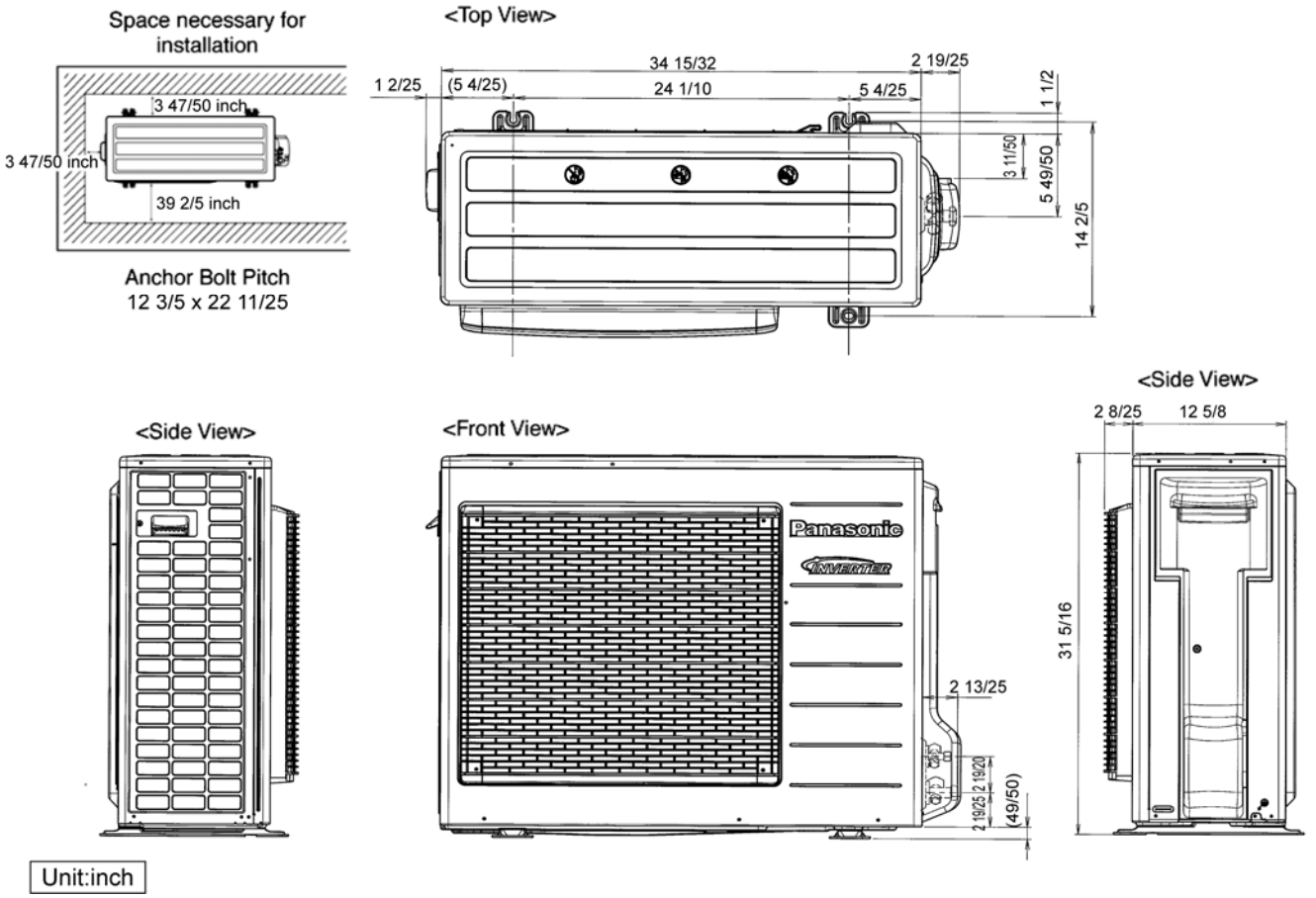


4.2 Outdoor Unit

4.2.1 CU-S9NKU-1 CU-S12NKU-1

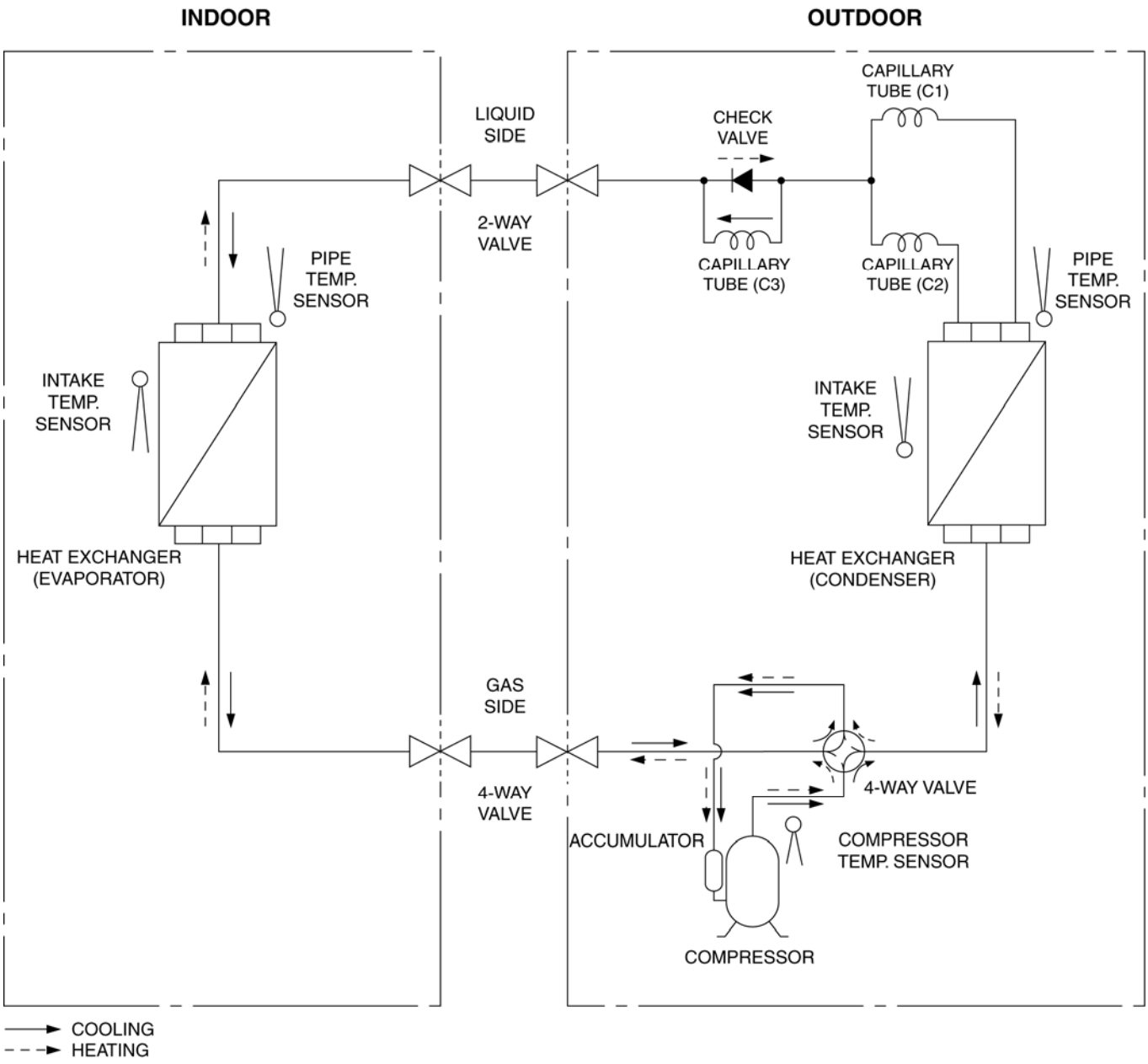


4.2.2 CU-S18NKU-1 CU-S22NKU-1

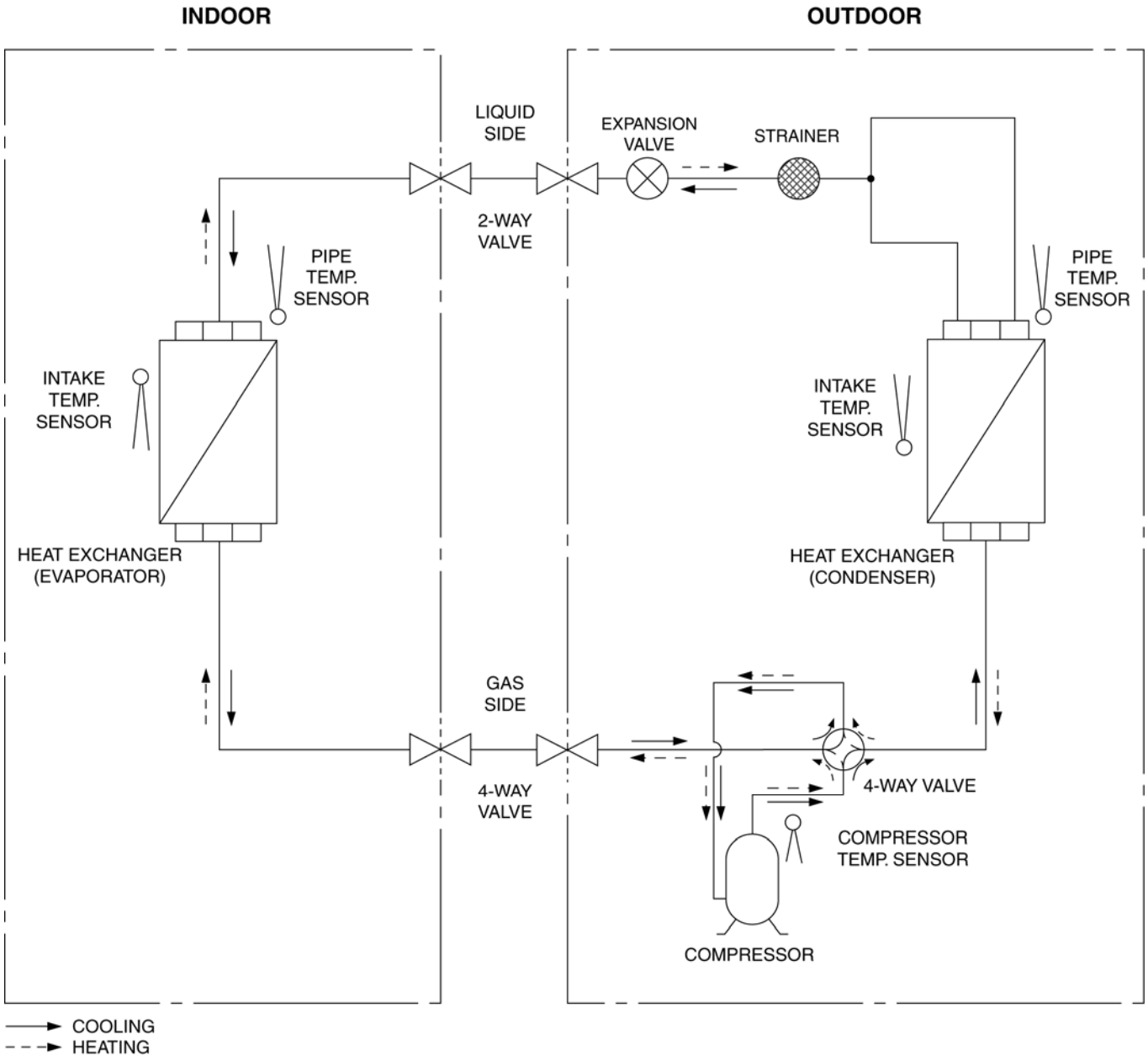


5. Refrigeration Cycle Diagram

5.1 CS-S9NKUW-1 CU-S9NKU-1 CS-S12NKUW-1 CU-S12NKU-1

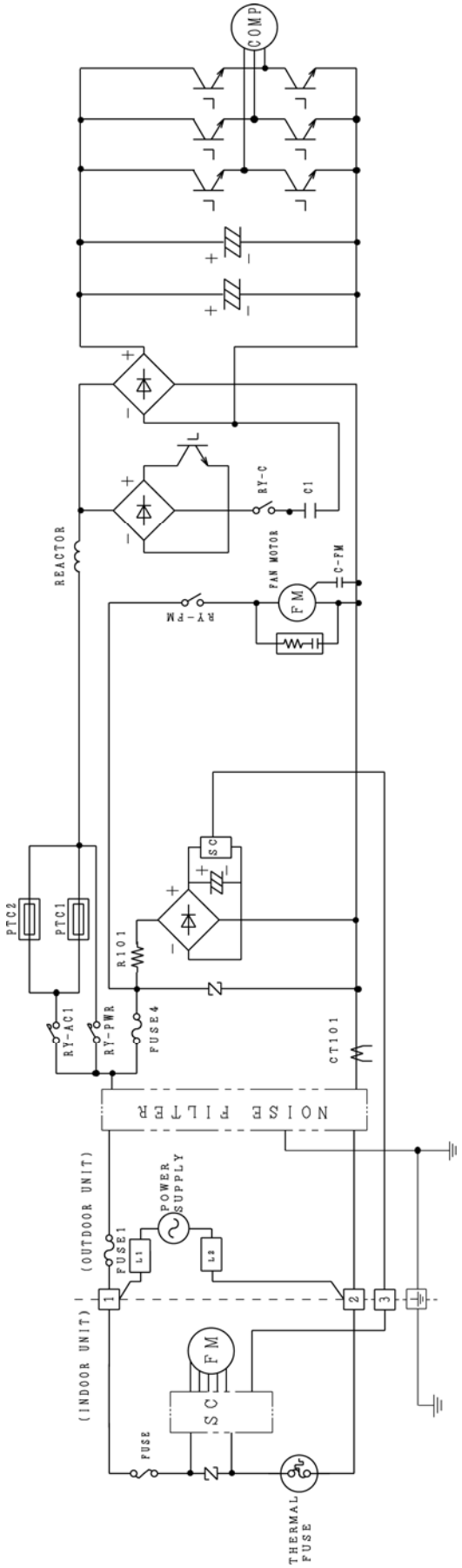


5.2 CS-S18NKU-1 CU-S18NKU-1 CS-S22NKU-1 CU-S22NKU-1

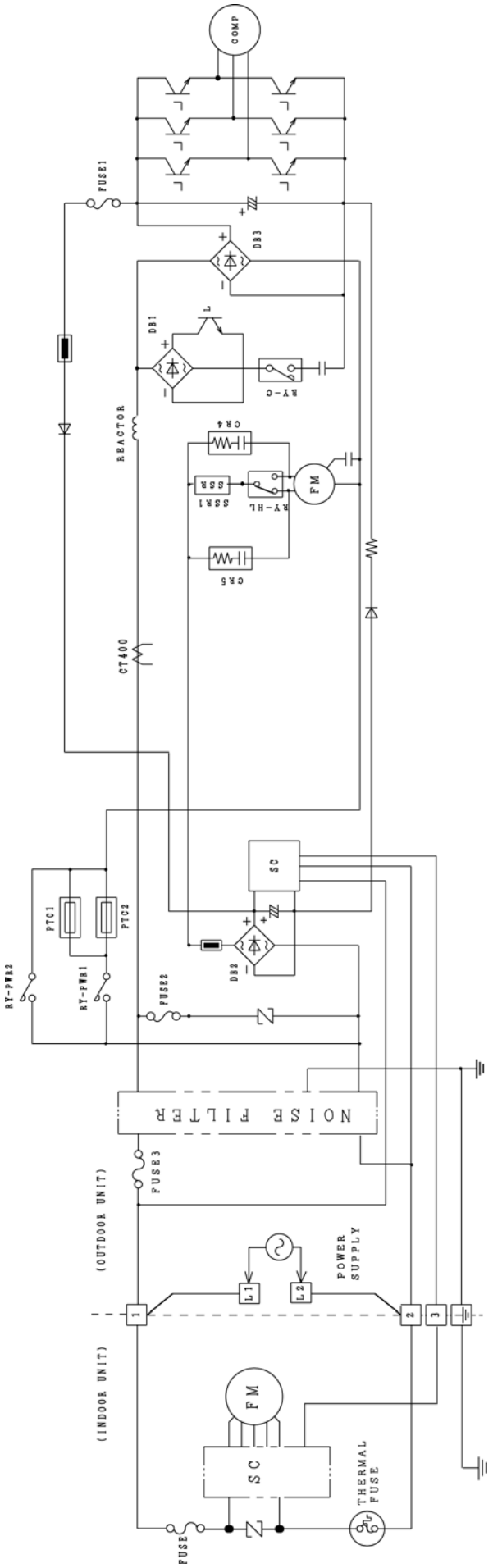


6. Block Diagram

6.1 CS-S9NKUW-1 CU-S9NKU-1 CS-S12NKUW-1 CU-S12NKU-1



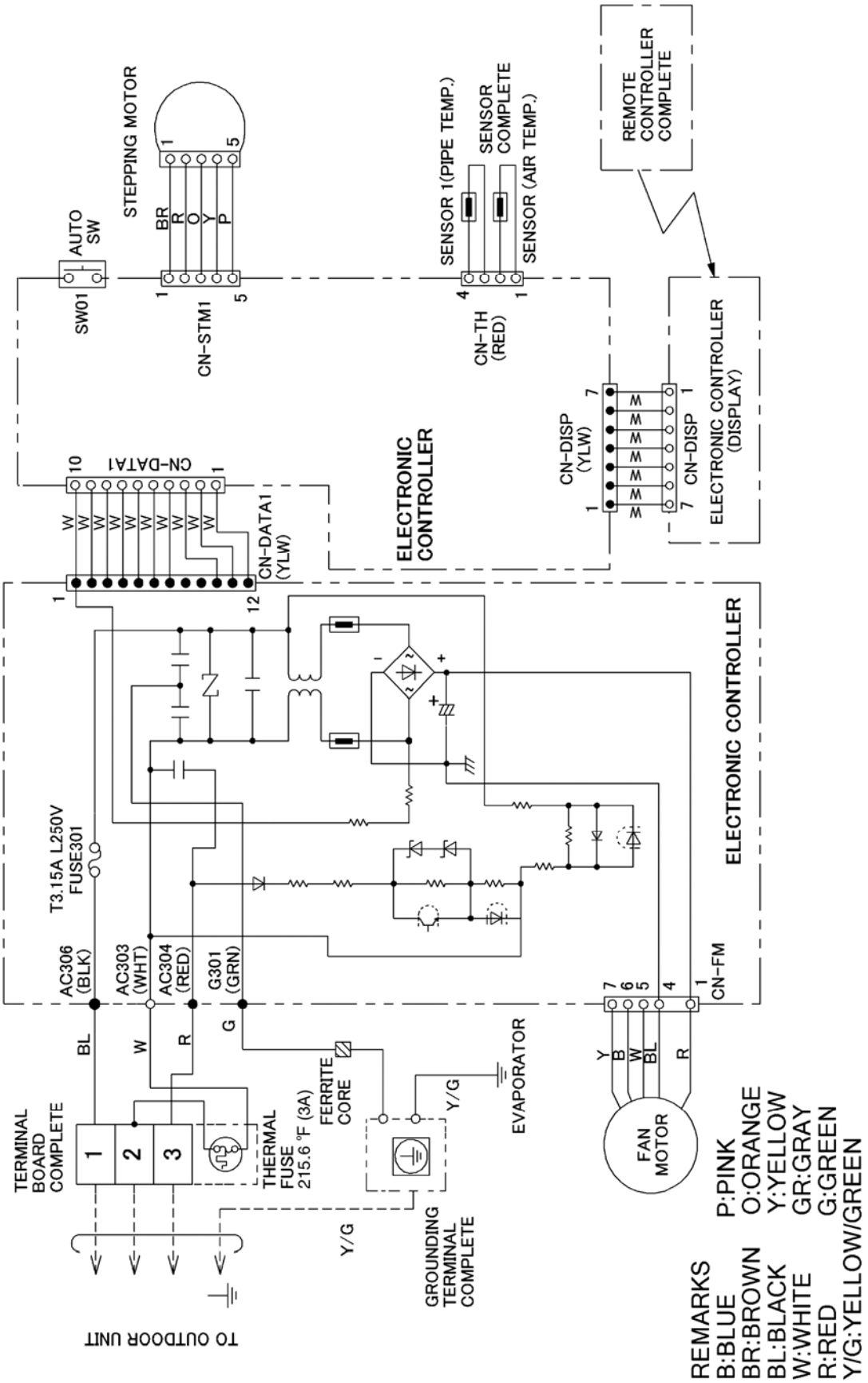
6.2 CS-S18NKU-1 CU-S18NKU-1 CS-S22NKU-1 CU-S22NKU-1



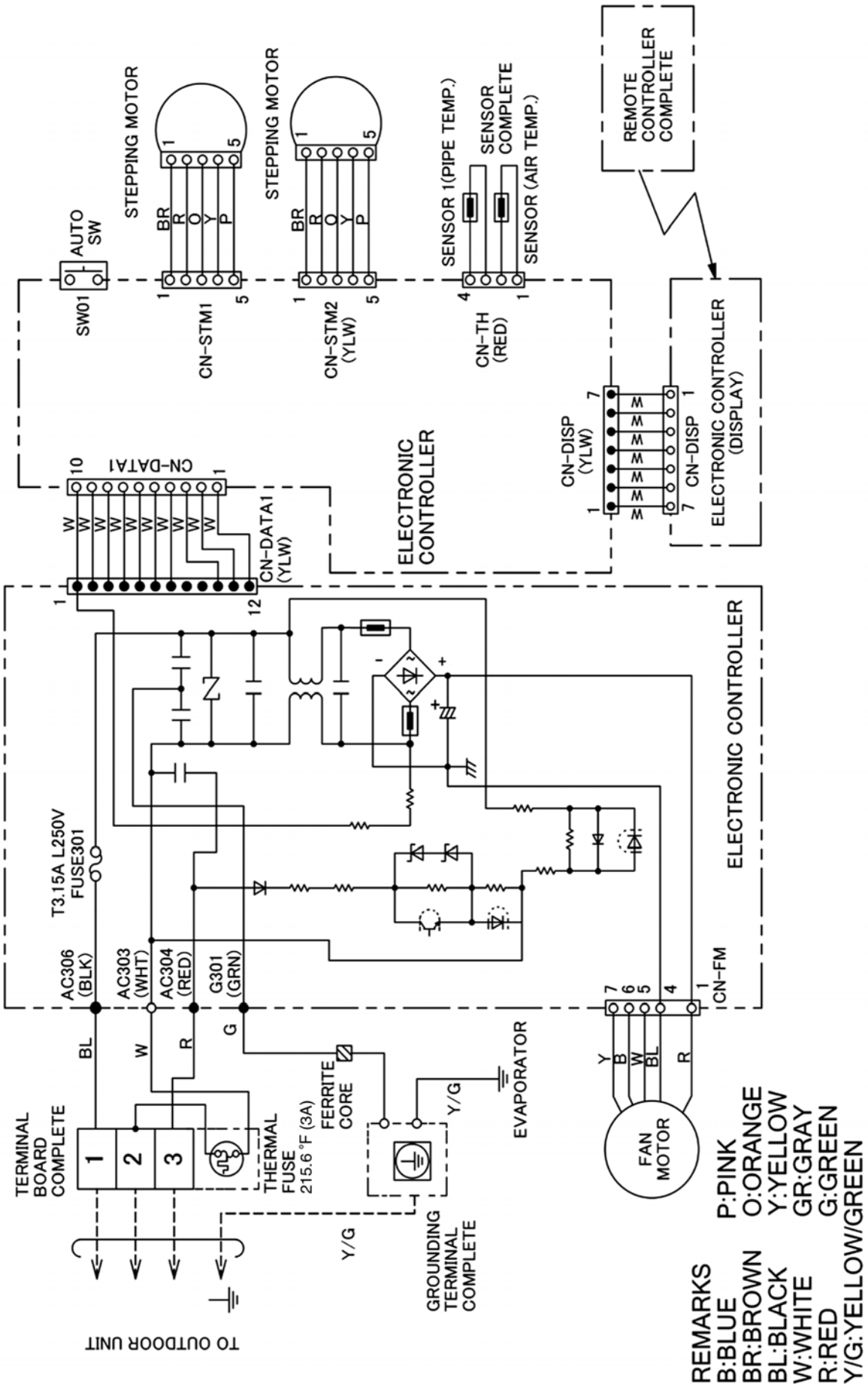
7. Wiring Connection Diagram

7.1 Indoor Unit

7.1.1 CS-S9NKUW-1 CS-S12NKUW-1

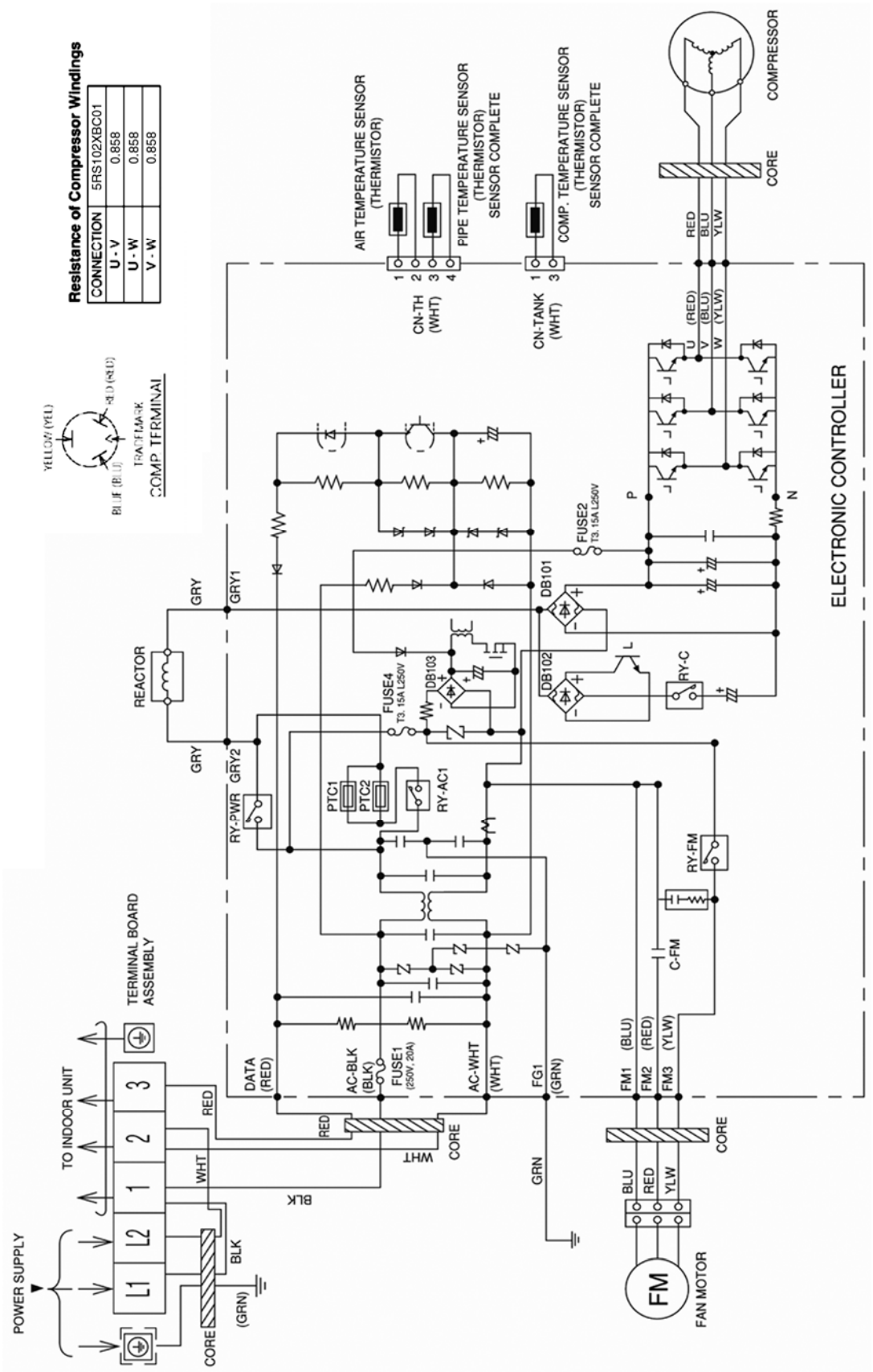


7.1.2 CS-S18NKU-1 CS-S22NKU-1



7.2 Outdoor Unit

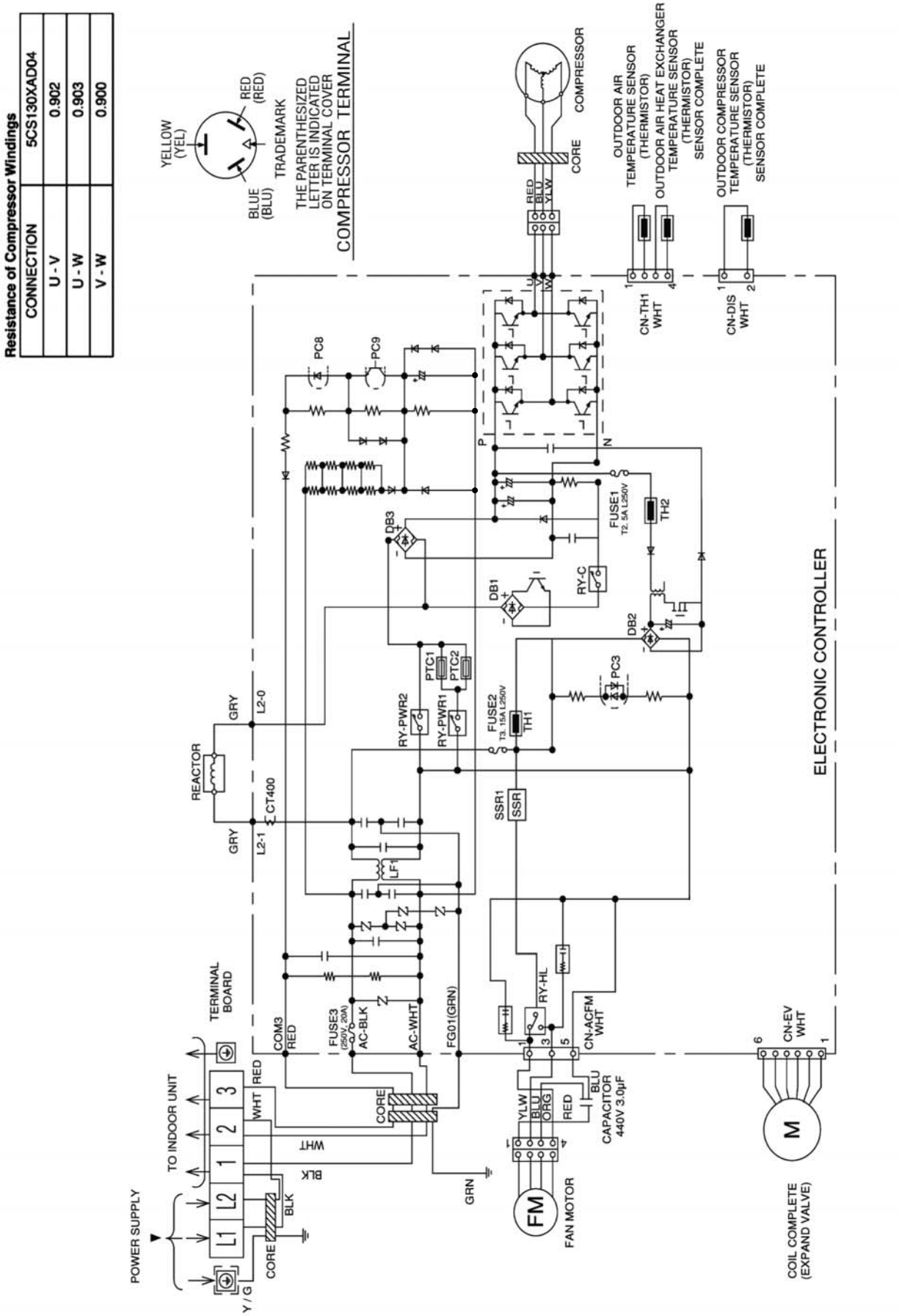
7.2.1 CU-S9NKU-1 CU-S12NKU-1



7.2.2 CU-S18NKU-1

Resistance of Compressor Windings

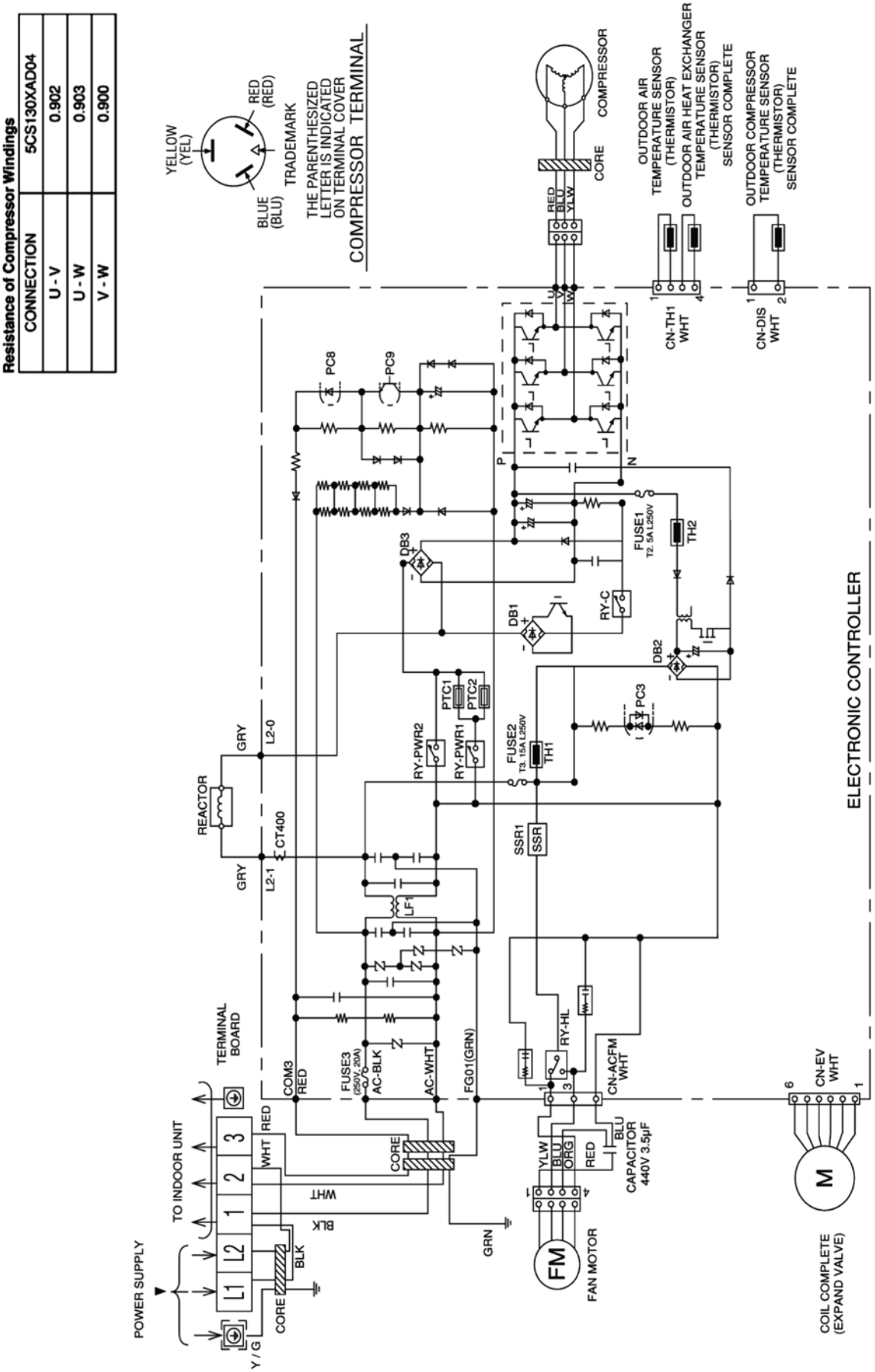
CONNECTION	5CS130XAD04
U - V	0.902
U - W	0.903
V - W	0.900



7.2.3 CU-S22NKU-1

Resistance of Compressor Windings

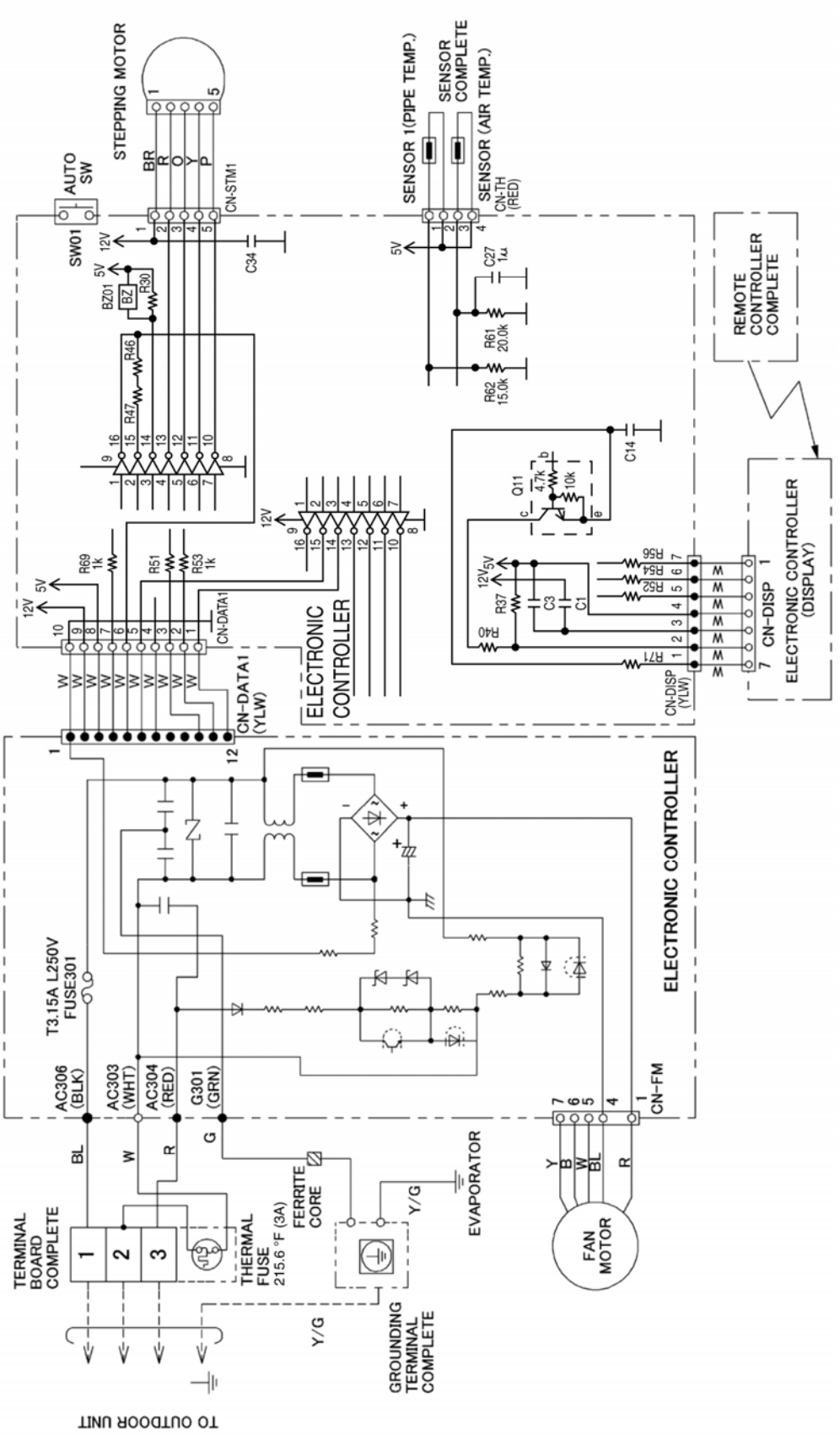
CONNECTION	5CS130XAD04
U - V	0.902
U - W	0.903
V - W	0.900



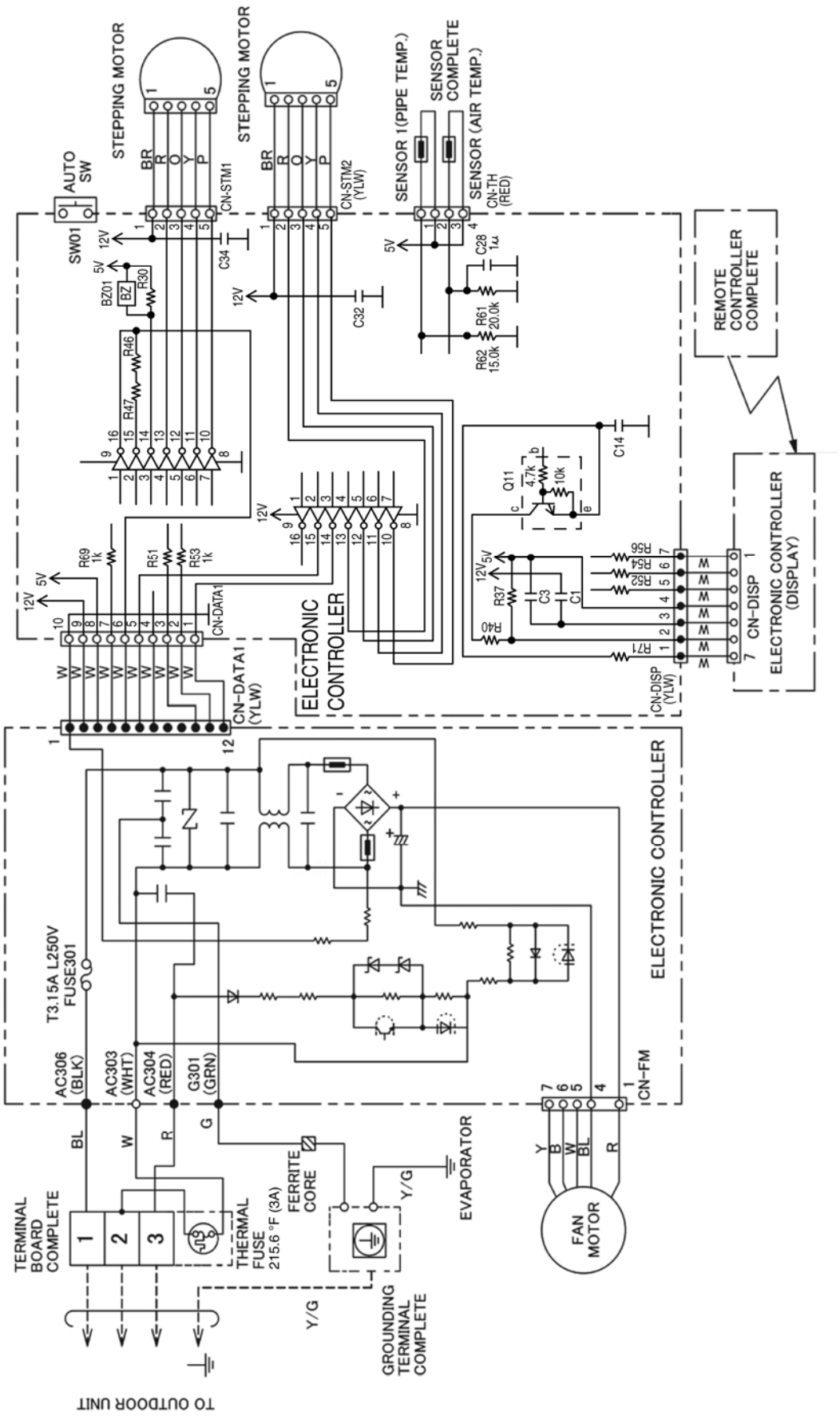
8. Electronic Circuit Diagram

8.1 Indoor Unit

8.1.1 CS-S9NKUW-1 CS-S12NKUW-1

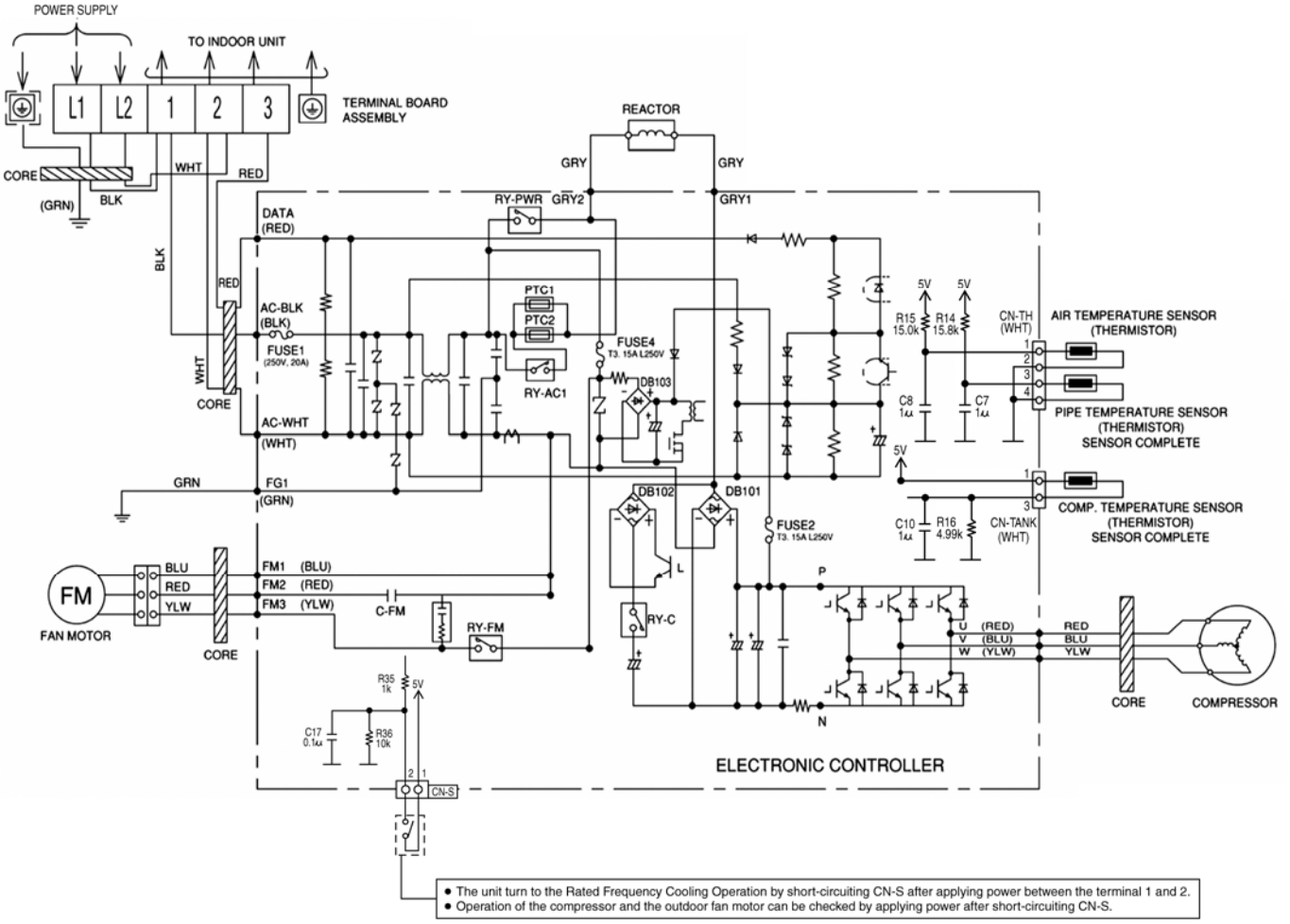


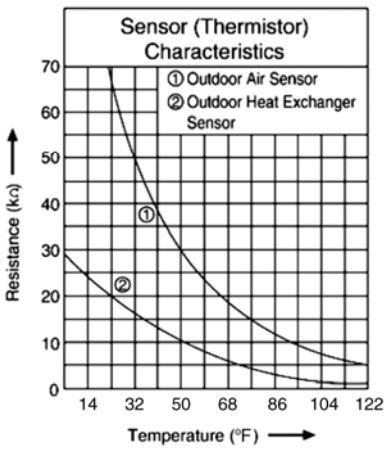
8.1.2 CS-S18NKU-1 CS-S22NKU-1

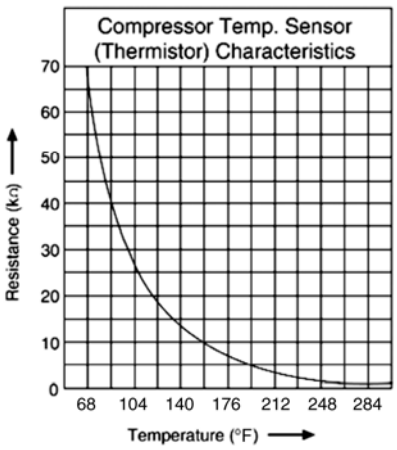


8.2 Outdoor Unit

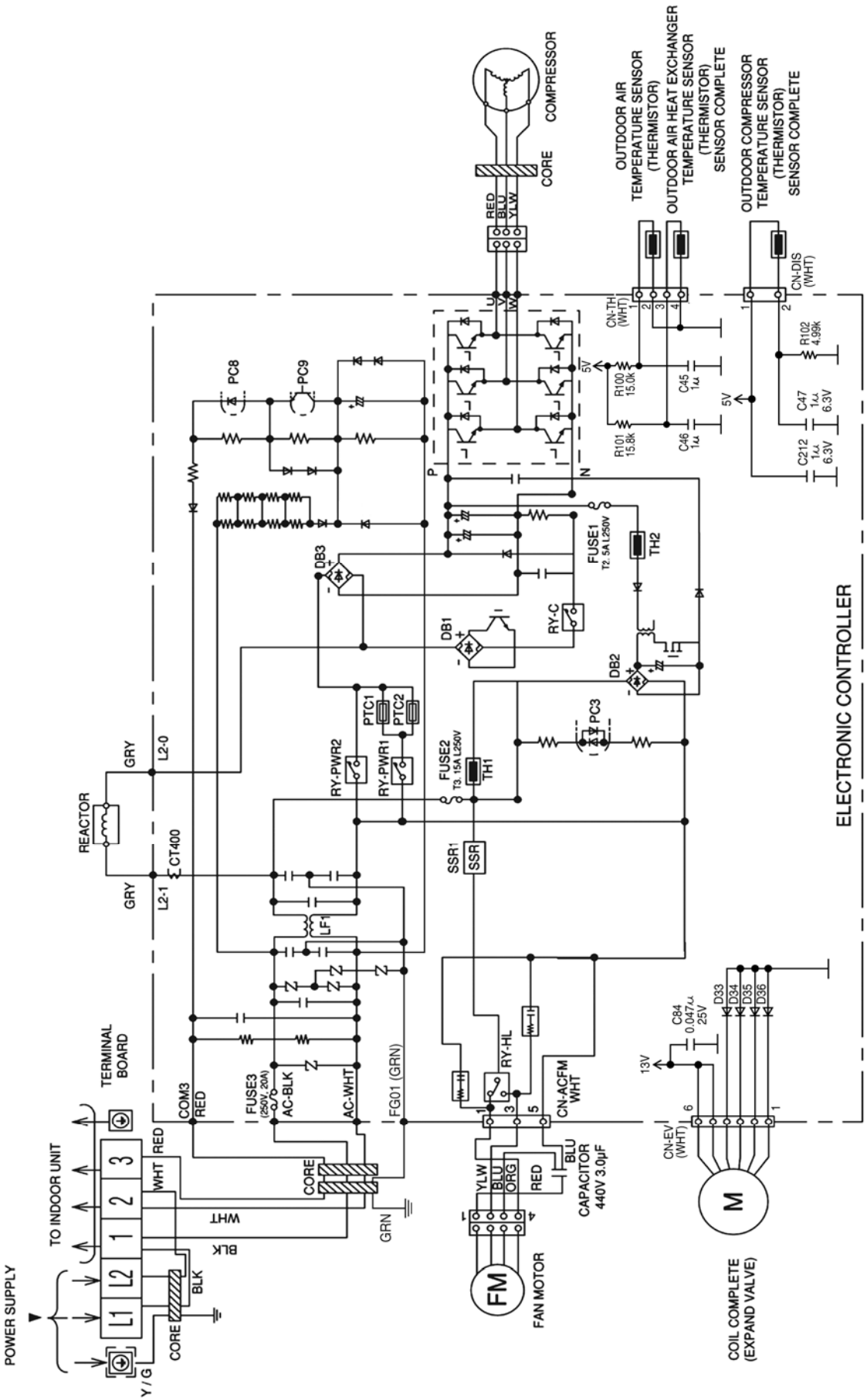
8.2.1 CU-S9NKU-1 CU-S12NKU-1



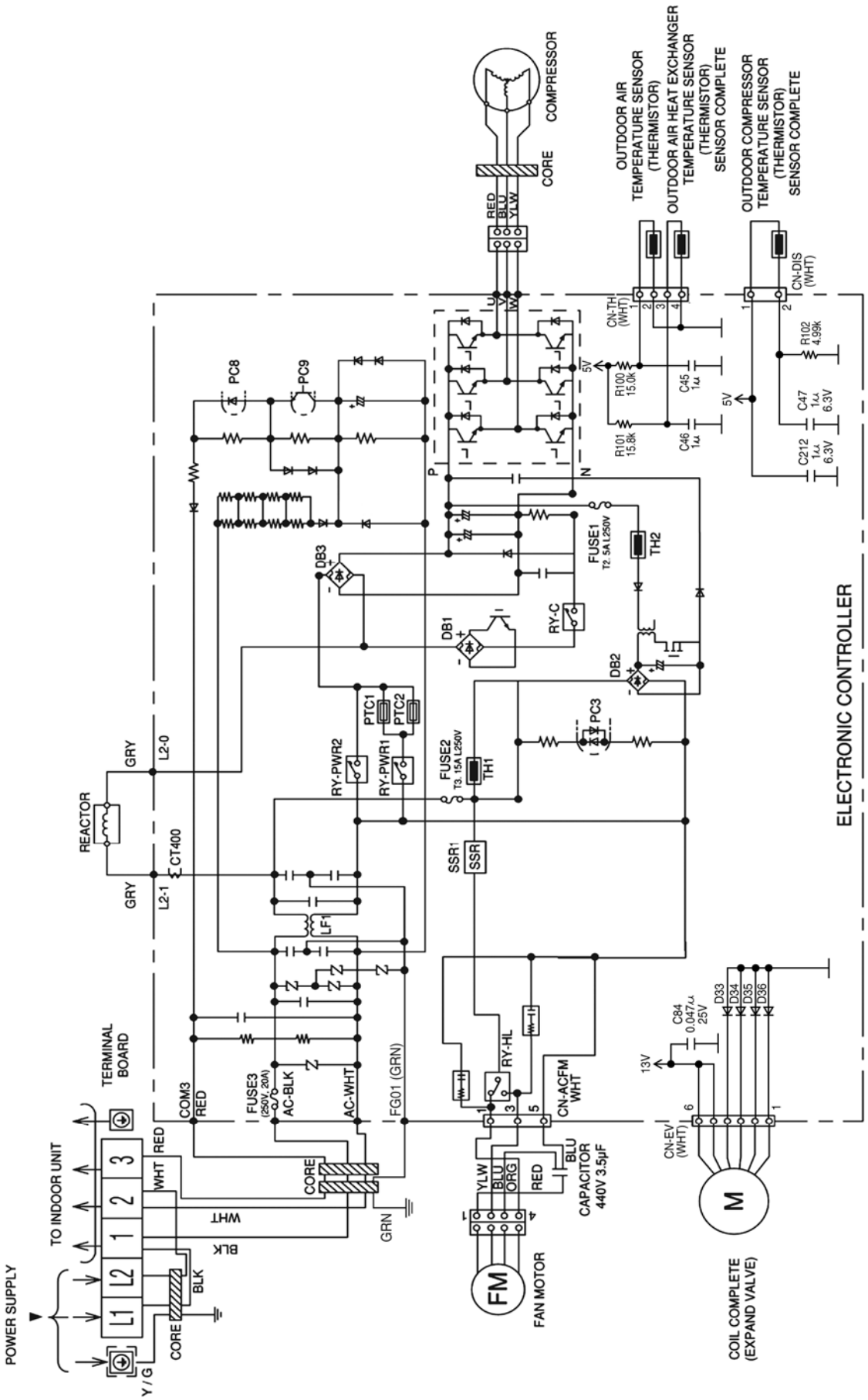




8.2.2 CU-S18NKU-1



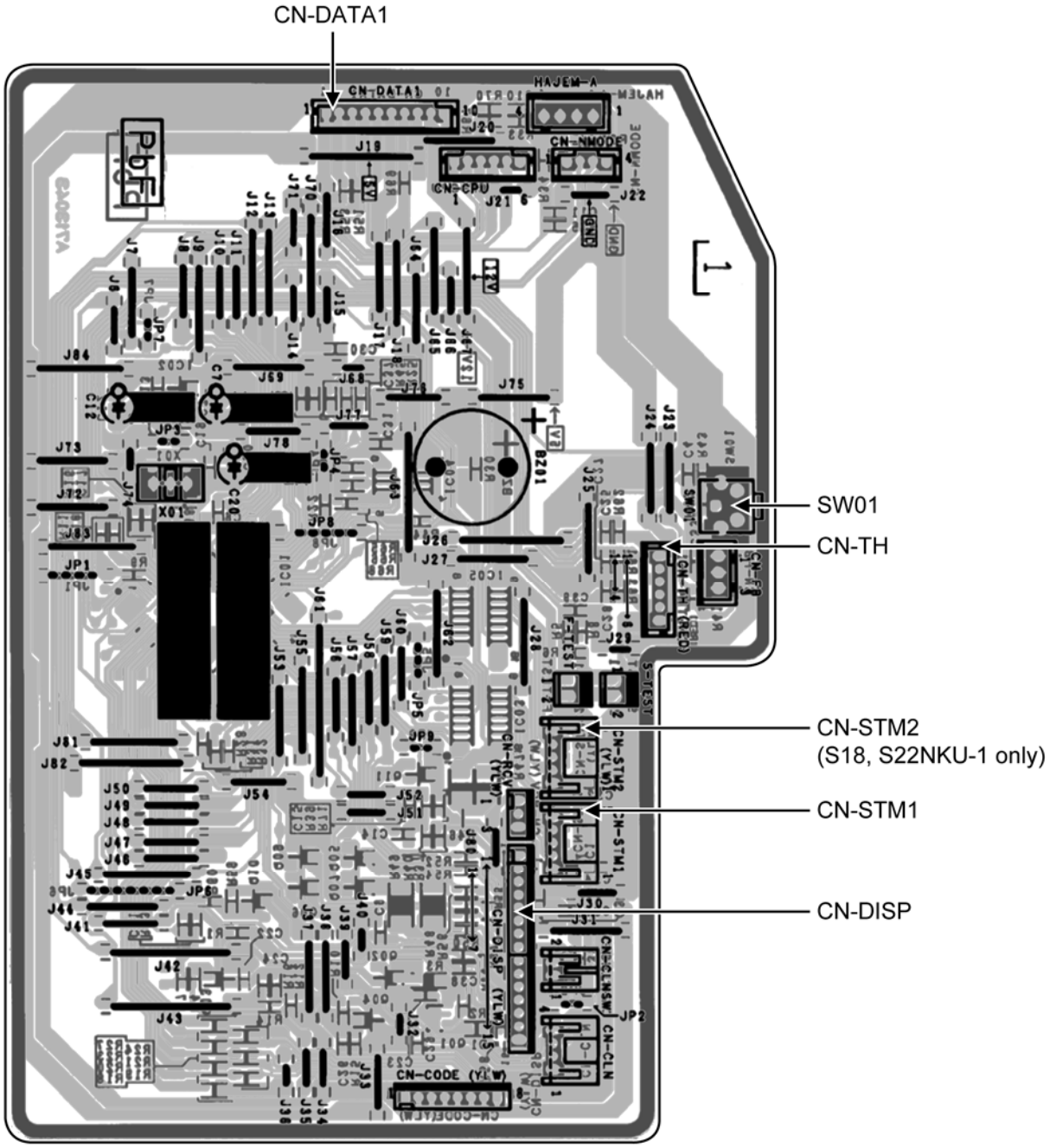
8.2.3 CU-S22NKU-1



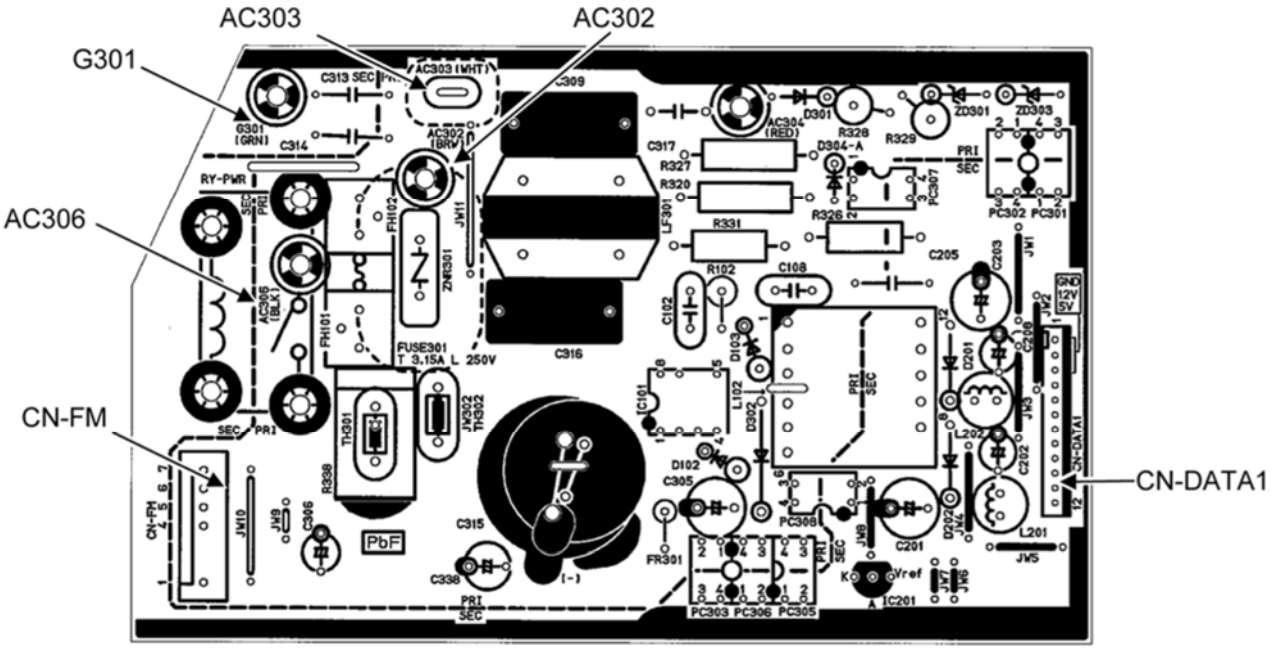
9. Printed Circuit Board

9.1 Indoor Unit

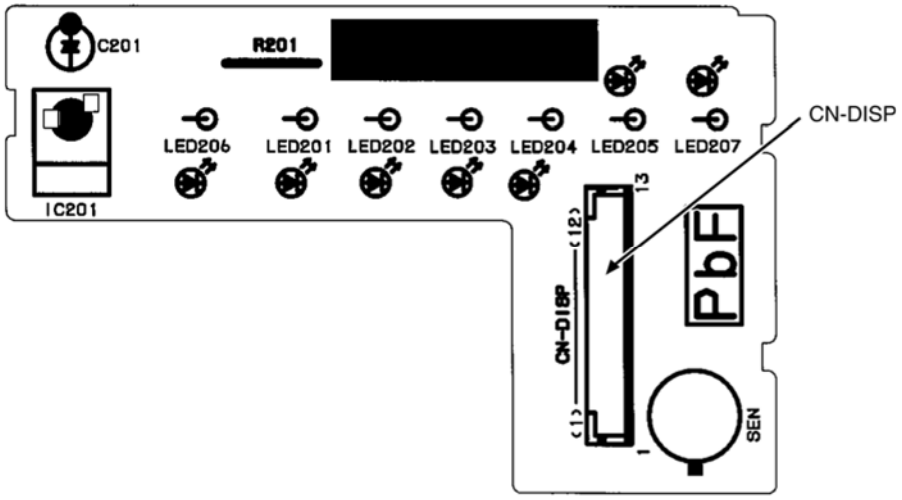
9.1.1 Main Printed Circuit Board



9.1.2 Power Printed Circuit Board



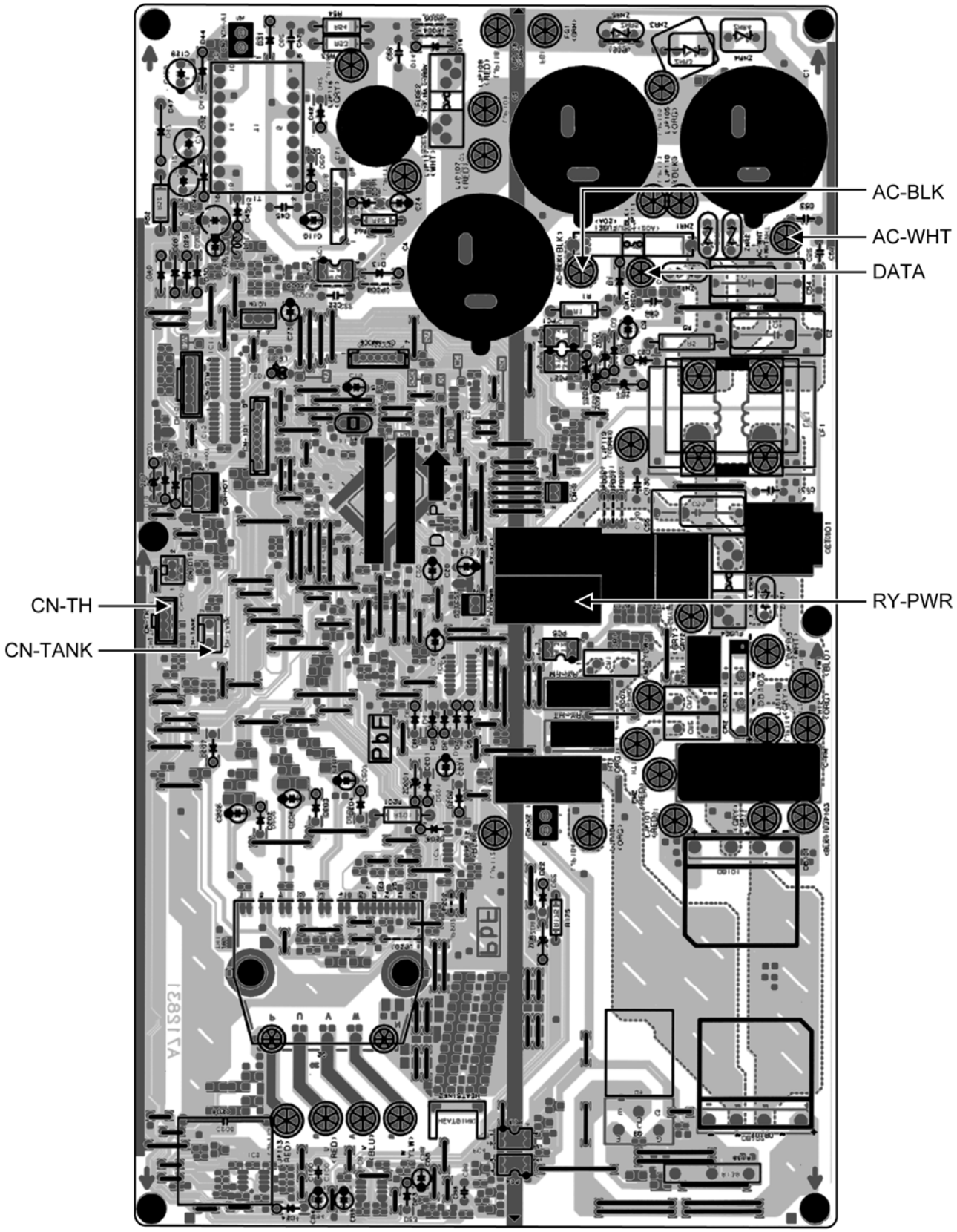
9.1.3 Indicator Printed Circuit Board



9.2 Outdoor Unit

9.2.1 Main Printed Circuit Board

9.2.1.1 CU-S9NKU-1 CU-S12NKU-1



9.2.1.2 CU-S18NKU-1 CU-S22NKU-1